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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY	USSR (Moscow Oblast)	REPORT	
SUBJECT	Details of Machine No. 195 Manufactured at the Krasnyy Proletariy Machine Tool Plant in Moscow	DATE DISTR.	23 January 1958
		NO. PAGES	3
		REQUIREMENT NO.	RD
DATE OF INFO.		REFERENCES	
PLACE & DATE ACQ.			

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SOURCE EVALUATIONS ARE DEFINITIVE APPRAISAL OF CONTENT IS TENTATIVE

1. The exact function of machine No. 195 was not known for certain, but [redacted] it was used to mill the planes or rudders intended for jet-engines, i.e., it processed and shaped the fins which acted as conductors of the gases. A rough idea of the part involved is given on the attached sketch.
2. This machine was on the secret list and special precautions were taken to hide its function during the testing process. A light partition was erected in one corner of the department where the machine was produced and a member of the Okhrana (guard) was posted there to prevent entry during testing. On some occasions the help of a foreman had to be enlisted when difficulties arose during tests, but the material with which the machine was working was hidden and the only outward sign was a considerable quantity of fine dust on the ground and in the atmosphere, which might have been graphite or carbon.
3. Machine No. 195 was first built in 1954 and only seven prototypes were produced, which took a whole month's work. They were sent to some unknown factory in Moscow. A year later the services of a specialist were required to repair the machines, [redacted]
4. The machine processed two parts simultaneously, marked No. 3 on the attached sketch, on the basis of the master pattern No. 3a. The milling-cutters were of high-speed steel, operating at 4,000 r.p.m. The machine was entirely closed in and was equipped with aspirators to clear the waste dust, which seemed to be graphite or carbon. The weight of the machine was 13 tons.

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(Note: Washington distribution indicated by "X"; Field distribution by "#".)

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Legend to Sketch on Page 3

1. Reductors equipped with a metronome speed device to regulate the speed of the processing. The tables at No. 8 do not always revolve at the same speed as the parts being processed and this is regulated by the reductor at No. 1.
2. Hydraulic cylinders, which automatically withdraw pattern arm No. 7a and the milling-cutters No. 4 at the end of the processing cycle.
3. Parts to be processed, which revolve in conjunction with the master pattern No. 4.
- 3a. Master pattern part, which revolves simultaneously with the parts to be processed.
4. Milling-cutters, which perform the processing of the parts and which are connected to the same driving shaft as the master pattern arm at No. 7.
5. Synchronized motors, which supply power to the reductors at No. 1.
6. Saddle on which the milling-cutters, etc., are fixed. This moves forward with the parts to be processed and at the end of the cycle moves back to its original position when the milled parts are removed and new rough parts are inserted, while at the same time the hydraulic cylinders at No. 2 are automatically disconnected.
7. Hydraulic control box regulating the forward speed of saddle No. 6 and that of the cylinders at No. 2.
- 7a. Master pattern arm which moves forward with the milling-cutters and follows the surface of the master pattern part, to which it is clamped by means of a spring.
8. Revolving tables, whose action is governed by the reductor at No. 1.
9. Hydraulic cylinders, which regulate the left/right horizontal movement of the master pattern arm and the milling-cutter.

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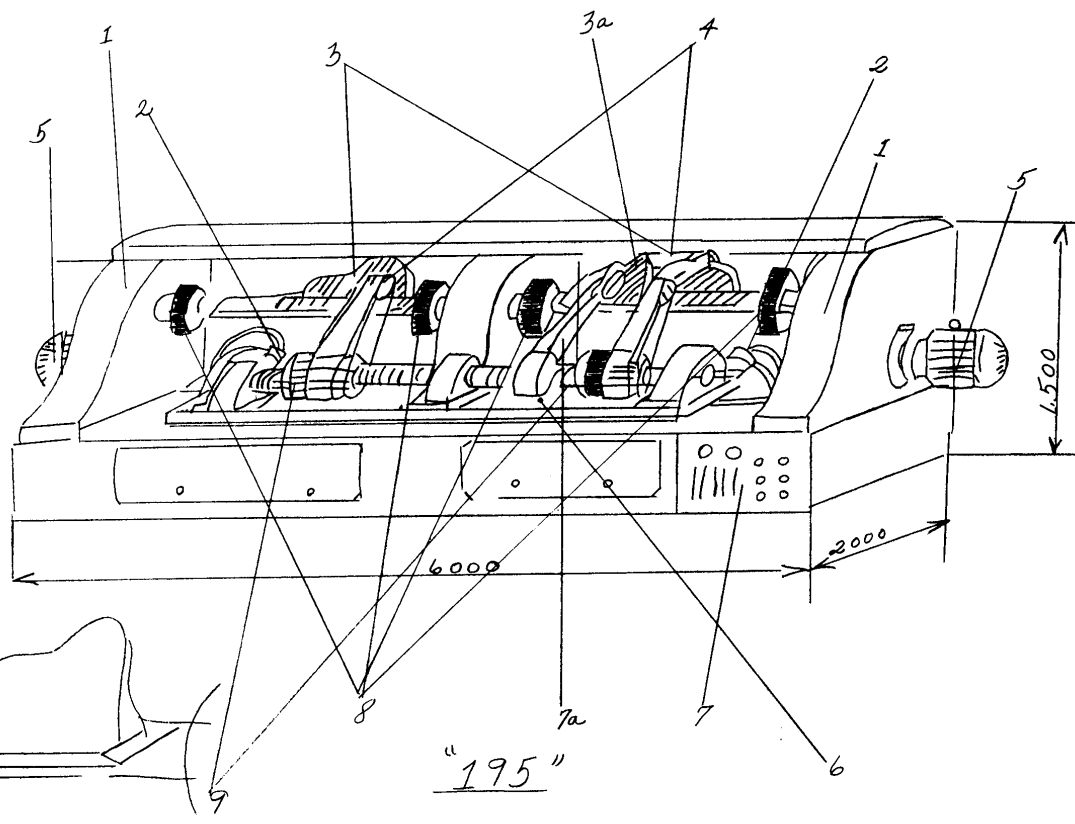
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